

# Notice of Allowability

Application No.

09/653,898

Examiner

John B. Vigushin

Applicant(s)

KASASHIMA, MASAHIKO

Art Unit

2827

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 11 September 2003.
2. ☒ The allowed claim(s) is/are 21-31.
3. ☒ The drawings filed on 01 September 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |  |   |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____             |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____  | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment                  |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other  |

John B. Vigushin  
Primary Examiner  
Art Unit: 2827

### **DETAILED ACTION**

1. The present Office Action is responsive to Applicant's Amendment filed September 11, 2003. The Examiner acknowledges the amendment to the Abstract, the cancellation of Claims 1-20 and the addition of new Claims 21-31. Accordingly, Claims 21-31 are now pending in the instant amended Application.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows to correct a minor informality; i.e., an omitted word:

**In Claim 26, the last paragraph, line 4: --portion-- has been inserted after "wiring".**

### ***Allowable Subject Matter***

3. Claims 21-31 have been allowed.

4. The following is an examiner's statement of reasons for allowance:

As to Claims 21-25, patentability resides in the limitation wherein *the pattern wiring is located in preset position other than a position in which the first and second sockets are located*, in combination with the other limitations of base Claim 21.

As to Claims 26-28, patentability resides in a first pattern wiring including the combination of: *a first wiring portion wired between the controller and the first terminal on the first surface, a second wiring portion wired between the second terminal and the third terminal, which is extended through the board, a third wiring portion between the fourth terminal and the fifth terminal on the second surface, a fourth wiring portion between the fifth terminal and the sixth terminal, which is extended through the board, and a fifth wiring portion between the sixth terminal and the resistance on the first surface*, in further combination with the other limitations of base Claim 26.

As to Claims 29-31, patentability resides in *the pattern wiring being located in a preset position on the insulating portion of the board other than a position in which the storage means are located*, in combination with the other limitations of base Claim 29.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Claims 21-31 of the instant allowed Application have been renumbered as Claims 1-11, respectively, for publication in the issued patent.

### **Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Voth et al. (US 6,526,465 B1) discloses memory modules 18a-e on attached to socket connectors 16a-e mounted on one side of a circuit board 12 and memory modules 28a-c attached to socket connectors 26a-c mounted on the opposite side of circuit board 12 (Fig. 1; col.1: 16-22; col.3: 1-8).

Wallace et al. (US 6,628,537 B1) and Perino et al. (US 6,657,871 B2) disclose a stacked assembly of socket connectors horizontally mounted on a circuit board for receiving memory devices. (See Wallace et al.: horizontal sockets 21, 23 on circuit board 11; Figs. 1 and 2; col.4: 5-30. See Perino et al.: horizontal socket 50 on circuit board 40 and memory devices 41a-c with horizontal sockets 51a-c; Fig. 4; col.5: 23-26 and 44-65).

Voth et al., Wallace et al. and Perino et al. do not teach or suggest that the pattern wiring on the circuit board is located in a preset position on the insulating portion of the circuit board other than a position in which the socket connectors (carrying the memory devices) are located.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Vigushin whose telephone number is 703-308-1205 (Crystal City campus) or 571-272-1936 (Carlyle campus). The examiner can normally be reached on 8:30AM-5:00PM Mo-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 703-308-1233 (Crystal City campus) or

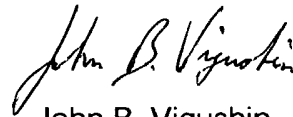
Application/Control Number: 09/653,898

Page 5

Art Unit: 2827

571-272-1957 (Carlyle campus). The fax phone number for the organization where this application or proceeding is assigned is 703-308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



John B. Vigushin  
Primary Examiner  
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jbv

December 31, 2003